1) Find the oxidation number of carbon in CO and CO_2

   CO

   $C + -2 = O$

   $C = 2$

   CO_2

   $C + 2 \times -2 = 0$

   $C = +4$

2) Find the oxidation number of Mn^{2+}

   $Mn = +2$

3) Find the oxidation number of the sulfur in SO_2 and SO_4^{2-}

   SO_2

   $S + 2 \times -2 = 0$

   $S = 4$

   SO_4^{2-}

   $S + 4 \times -2 = -2$

   $S = +6$

4) Find the oxidation number of Cl in $KClO_3$ and Cl_2

   $KClO_3$

   $+1 + Cl + 3 \times -2 = 0$

   $Cl = +5$

   Cl_2

   $Cl = 0$ (elemental form)